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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,377	07/12/2005	Shizuo Kitahara	4670-0107PUS1	9771

2292 7590 12/14/2009
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EXAMINER

JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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12/14/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/540,377	Applicant(s) KITAHARA ET AL.	
	Examiner Monique R. Jackson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/16/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/09 has been entered.
2. Claims 14-22 and 24-25 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 14-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-004526 A (JP'526) for the reasons recited in the prior office action and evidenced by Mallory et al (USPN 6,723,431) or Migliorini et al (USPN 6,649,279) or Touhsaent et al (USPN 5,827,615) or Tsai et al (USPN 6,472,081).
4. As discussed in the prior office action, JP'526 teaches a molded panel comprising a molded resin panel and a metal deposition layer 5 of indium, tin, zinc, or mixture thereof, having a thickness of 10-50nm, formed thereon, wherein when the resin of the molded panel 1 is polypropylene (*a non-polar hydrocarbon*), a cyclized rubber layer is preferably used as an adhesive or glue layer between the panel 1 and the deposition layer 5 (Abstract; Paragraph 0029; Figures.) JP'526 teaches that the deposition layer 5 can be formed by vacuum deposition or sputtering (Paragraph 0028.) Though JP'526 teaches a separate adhesive layer formed of the cyclized rubber layer adhesion promoting agent on the polypropylene panel, it is well established

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in the art that adhesive materials or adhesion promoting materials, particularly for polyolefin resins such as polypropylene, may be incorporated into the polypropylene resin as opposed to, or in addition to, providing a separate layer of the adhesive or tie material, as evidenced by Mallory et al (Col. 5, lines 55-58) or Migliorini et al (Col. 6, lines 56-61) or Touhsaent et al (Abstract) or Tsai et al (Col. 2, lines 50-56). Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the cyclized rubber adhesive material into the polypropylene resin in the invention taught by JP'526, as an alternative means of improving adhesion of the subsequently applied deposition layer, given predictable results and the reasonable expectation of success, wherein the Examiner further notes that the instant disclosure actually teaches that both options are suitable for the invention. With regards to the molecular weight, cyclization ratio, and gel amount of the cyclized rubber, though JP'526 fails to particularly disclose these properties of the cyclized rubber, as previously discussed, one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum molecular weight, cyclization ratio, and gel amount based upon the desired properties of the resulting composition wherein these properties are known, result-effective variables that affect the mechanical properties of the final product. With regards to further functionalization of the rubber by incorporating functional groups, it is well established in the art that polar functional groups such as maleic anhydride can be grafted or introduced unto rubbers or olefin polymers to provide improved adhesion to subsequent coatings or layers, wherein the amount of the polar group is a result-effective variable that one skilled in the art would be motivated to determine by routine experimentation. Lastly, though JP'526 fails to teach an amorphous carbon film, as previously discussed, the Examiner takes the position that

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a thin amorphous carbon film is an obvious layer utilized in the art to provide improved barrier properties and surface protection to polymer films and would have been obvious at the time of the invention.

Response to Arguments

5. Applicant's arguments with respect to claims 14-22 and 24-25 have been considered but are not persuasive. The Applicant argues the Examiner position with respect to incorporating the adhesion promoting or adhesive layer material into the polypropylene as a known alternative method to providing a separate adhesive or tie layer and requests that the Examiner provide documentary evidence to support her position. In response, the Examiner has provided several references as recited above and further notes that the instant disclosure at the time of filing clearly teaches that both options are suitable for the invention and hence there does not appear to be any unexpected results with regards to the adhesion promoting material being incorporated into the molded article vs. being provided as a separate layer on the molded article.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 10:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monique R Jackson/
Primary Examiner, Art Unit 1794
December 7, 2009